S/106/60/000/006/004/011
A055/A133

9,3280

AUTHOR: Shpakov, V. I.

TITLE: Calculation of an electronic relay

PERIODICAL: Elektrosvyaz', no. 6, 1960, 18 - 23

TEXT: When calculating the parameters of a symmetrical electronic relay
(shown schematically in fig. 1), it is usually assumed that the anode load resist-
ance R_a is considerably smaller than the resistance $R_{ag} + R_g$ of the divider.
("delitel' svyazi") In the case of high-speed relays, however, it is necessary
that the resistance of the divider should be small, since (the capacitances of
the circuit being constant) these resistances determine the steepness of the front
of the impulse. But these resistances, when they are commensurable with the anode
load, exert a substantial influence upon the operating conditions of the relay
and upon the magnitude of the output pulses. The object of the present article
is to give a comparatively simple method of calculating the parameters of the re-
lay in the case of commensurable resistance of the anode circuit and the grid
circuit. As shown by L. A. Meyerovich and L. G. Zelichenko ("Impulse Technique"
edited by "Sovietskoye Radio", 1953), the transfer characteristic, determining

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Calculation of an electronic relay

S/106/60/000/006/004/013
A055/A133

the high-speed properties of the relay, depends, for given capacitances, on the resultant resistances of the anode circuit $R_{as} = \dfrac{Ra\ Rio}{Ra + Rio}$ and of the grid circuit $R_{gs} = \dfrac{Rag\ Rg}{Rag + Rg}$, where Rio is the d-c. resistance of the tube. The required duration of the front of the transfer characteristic of the output circuit is

$$\tau_\phi = \frac{R_a R_{i0}}{R_a + R_{i0}} C'$$

(1)

and the time separating two controlling pulses is:

$$T = 2,3 C'' \frac{R_{ag} R_g}{R_{ag} + R_g}.$$

(2)

where C' comprises the output capacitance of the tube, the capacitance of the wiring and the capacitance of the load connected to the output circuit, whereas C" comprises the input capacitance of the tube, the capacitance of the wiring, the capacitance of the source of the controlling pulses and the capacitance on parallel with Rag. Using these formulae and the equivalent circuits of Fig. 2 [a) for the blocked tube and b) for the unblocked tube], the author first states the con-

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Calculation of an electronic relay

ditions under which the operation of the relay will be stable. These conditions are: $|U_g(+)| \geqslant 0$ (fig. 2a) and $|U_g(-)| \geqslant U_{bl}$ (fig. 2b), where U_{bl} is the tube blocking voltage [Abstracter's note: subscript "bl" (blocking) is the translation of the original " 3 " ("zapiranie")]. On the basis of these conditions, the author obtains a formula giving $R_{ag} + R_g$:

$$R_{ag} + R_g = \frac{U_1 R_a R_{l0} (E_1 + E_2) + E_2^2 k_a^2}{E_1 E_2 k_a - U_1 (E_1 + E_2)(R_a + R_{l0})}. \qquad (8)$$

He then deduces two other formulae giving respectively the limit-value of E_2 and the value of E_1 for which $R_{ag} + R_g$ tends towards infinity. The set of formulae obtained by the author allows to determine the values of E_2 and of $R_{ag} + R_g$ ensuring a stable operation of the relay. An algebraic solution of the involved equations being difficult, the author resorts to a graphical solution. He recalls next that the choice of the relay parameters depends on the manner in which E_1 and E_2 vary. Three cases are possible: 1) E_1 and E_2 vary proportionally in the same direction; 2) they vary in the same direction, but E_1 varies quicker than E_2; 3) they vary in the same direction, but E_1 varies slower than E_2. The author shows how either of these three cases affect the choice of the parameters of the relay. At the end of the article, the author's formulae are applied to a

Card 3/4

21405
S/089/61/011/006/008/014
B102/B138

21,100º

AUTHORS: Shpakov, V. I., Petrzhak, K. A., Bak, M. A., Kovalenko, S. S.,
             Kostochkin, O. I.

TITLE: Delayed-neutron yields in Pu^{239} and Th^{232} fissions induced
             by 14.5-Mev neutrons

PERIODICAL: Atomnaya energiya, v. 11, no. 6, 1961, 539 - 540

TEXT: From theoretical considerations and analyses of experimental data
a slight decrease in delayed-neutron yields is expected with increasing
excitation energy. So far it has only been measured for 14.5 Mev
thermal fission neutrons from U^{235}. The authors measured the delayed-
neutron yield of 14.5-Mev neutron-induced Pu^{239} fission and, for compari-
son, that of Th^{232} fission. It was determined as the ratio between number
of fission events and the number of delayed neutrons produced per second
in the sample of fissile matter. The Pu or Th sample was cadmium coated
and bombarded with 14.5-Mev neutrons from $T(d,n)He^4$ reactions, with a
target just behind it being irradiated simultaneously. The steel backing
of the target was one electrode of the ionization chamber. To measure
Card 1/3

21405

S/089/61/011/006/008/014
B102/B138

Delayed-neutron yields in...

the number of delayed neutrons emitted, about 0.2 sec; after irradiation had ceased the sample was dipped into a neutron detector 1.5 m from the neutron source. The detector consisted of 17 boron counters of the CHM-5A (SNM-5A) type contained in a paraffin block. The end of neutron bombardment which coincided with removal of the sample was established cinematographically with an accuracy of 0.02 sec. As neutron counting started 0.2 sec after the end of bombardment, this caused a loss in neutrons with a delay of 0.16 sec. Special measurements were made to determine this error, which was not above the experimental level. The total number of delayed neutrons could thus be determined by extrapolating the neutron number – versus – time curve to the instant when bombardment ceased. The following results were found: total delayed-neutron yield per decay event: 0.0130 ± 0.0015 for Pu^{239}, and 0.075 ± 0.007 for Th^{232}. The Pu^{239}, yield is twice as high as when fission is induced by thermal or fission neutrons. This result is explained by assuming that neutron emission probability increases with increasing excitation energy. There are 1 figure and 4 references: 3 Soviet and 1 non-Soviet. The two references to English-language publications read as follows: G. Keepin et al., Phys. Rev. 107, 1044 (1957); J. Nucl. Energy, 6, 1 (1957); K. Sun et al., Phys. Rev. 79, 3, 1950.
Card 2/3

21405
S/089/61/011/006/008/014
B102/B138

Delayed-neutron yields in...

SUBMITTED: July 18, 1961

Card 3/3

SHIPAKOV, V.I.

My time errors in heat transmission simulation equation. Izv.
vys. ucheb. zav.; neft' i gaz 6 no.7:101-107 '63.
(MIRA 17:8)

1. Azerbaydzhanskiy politekhnicheskiy institut.

KOSTOCHKIN, O.I.; PETRZHAK, K.A.; SOKOLOV, A.M.; SHPAKOV, V.I.

A $4-\pi$ counter for measuring the radioactivity of gaseous products. Prib. i tekh. eksp. 9 no.3:52-55 My-Je '64
(MIRA 18:1)

SHPAKOV, V.I.; KOSTOCHKIN, O.I.; PETRZHAK, K.A.; ARON, P.M.

Yields of ^{87}Br, ^{88}Br, ^{89}Br, ^{137}I, ^{138}I precursors of delayed neutrons in the fission of ^{238}U and ^{232}Th with an energy of 14.5 Mev. Radiokhimiia 7 no.1:96-103 '65.   (MIRA 18:6)

KRISYUK, I.T.; SHPAKOV, V.I.

Calculation of partial and total fission yields. Radiokhimiia
7 no.6:698-703 '65. (MIRA 19:1)

L 34614-66   EWT(m)

ACC NR: AP6026574   SOURCE CODE: UR/0186/65/007/006/0692/0703

AUTHOR: Krisyuk, I. T.; Shpakov, V. I.

ORG: none

TITLE: Calculation of partial and total fission fragment yields

SOURCE: Radiokhimiya, v. 7, no. 6, 1965, 692-703

TOPIC TAGS: nuclear fission, isotope, fission product

ABSTRACT: Experiments undertaken by the authors have shown that calculating
partial and total yields of fission fragments requires that a large number
of factors be taken into account, capable of affecting the ultimate activity
of the isotope in question. If a precise calculation of the corrections to
be made is complex, then at least an evaluation of possible secondary processes
must be carried out. In calculating total yields it is necessary also to
estimate a correction for the yield of subsequent chain members and the
noninstantaneous decay of precursors. By calculating yields according to
given formulas with allowance for all the corrections specified in the article,
yield values can be obtained that are close to actual values. Orig. art. has:
4 tables and 29 formulas. [JPRS: 36,455]

SUB CODE: 20 / SUBM DATE: 12Jun64 / ORIG REF: 006 / OTH REF: 004

Card 1/1   UDC: 539.173.8

25756
S/024/61/000/001/010/014
E061/E128

9.3280

AUTHORS: Ginzburg, M.Ya., and Shpakov, V.L.   (Sumgait)

TITLE: A Contribution to the Problem of the Construction of Electronic Delay Circuits

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1961, No. 1, pp.164-165

TEXT: An electronic circuit giving a pure time delay, which can be simply varied, is described. The circuit uses operational amplifiers and is designed to utilize the full permissible range of amplifier voltages. The circuit is shown in the diagram. The circuit parameters are given by:

$$K_{11} = \frac{1}{R_{11}C_1} = \frac{12}{C_{21}C_{31}\tau} \; ; \qquad K_{12} = \frac{1}{R_{12}C_1} = \frac{72}{C_{41}C_{21}\tau}$$

$$K_{13} = \frac{1}{R_{13}C_1} = 6\tau^{-1} \; ; \qquad K_{21} = \frac{1}{R_{21}C_2} = C_{21}\tau^{-1}$$

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25756

S/024/61/000/001/010/014
E061/E128

A Contribution to the Problem of the Construction of Electronic
Delay Circuits

$$K_{22} = \frac{1}{R_{22}C_2} = \frac{12}{C_{41}\tau} \; ; \qquad K_{31} = \frac{R_{oc3}}{R_{31}} = C_{31} \leq 1$$

$$K_{41} = \frac{R_{oc4}}{R_{41}} = C_{41} \geq 2 \; ; \qquad K_{42} = \frac{R_{oc4}}{R_{42}} = 1$$

$$C_{21} \geq \frac{24}{C_{41}}$$

τ is the delay time; the K terms denote gains; C_{41}, C_{31}, C_{2f}
are constants. The highest pulsation in the frequency
spectrum of the input must be less than π/τ. The circuit
represents a convenient method of simulating systems in which the
delay time is a function of other variables.
There are 1 figure and 2 Soviet references.

SUBMITTED: April 11, 1960

Card 2/3

KAPLAN, A.L.; SHPAKOV, V.L.

Calculating sections of equal discharge for the PUR sampler. Transp. i khran. nefti i nefteprod. no.11:20-22 '64.

(MIRA 18:1)

1. Nauchno-issledovatel'skiy i proyektryy institut po kompleksnoy avtomatizatsii proizvodstvennykh protsessov v neftyanoy i khimicheskoy promshlennosti.

ABSTRACT: An investigation was made of the possibility of producing a Q-switched laser based on a series of crystals operating at 300°K. The crystals consisted of mixed fluoride systems CaF_2—YF_3—Nd^{3+}, CaF_2—CeF_3—Nd^{3+}, BaF_2—LaF_3—Nd^{3+}, types I and II CaF_2—Nd^3 crystals, and garnet crystals ($Y_3Al_5O_{12}$), scheelite crystals ($CaWO_4$), and glasses activated with Nd^{3+} ions. A study was also made of the relationship between the numerous optical centers which are present in mixed fluoride crystals in the free-running and Q-switched modes. The threshold values of excitation energy in the investigated modes were

UDC: none

Card 1/2

ACC NR: AP7006131

comparatively low. These values increase slightly as the Q-switched mode is approached. All of the active media investigated can be divided into two groups, according to the variety of optical activator centers. The first group includes crystals which produce a small quantity of centers (1 to 7) at the activator concentration used in lasers (0.5—5%). This group includes types I and II CaF_2—Nd^{3+}, as well as $Y_3Al_5O_{12}$—Nd^{3+} and $CaWO_4$—Nd^{3+}. The second group includes mixed fluoride crystals in which the number of optical centers can reach 100. In the crystals of the first group only one type of optical centers participates in the generation at $300°K$. In the crystals of the second group, which are characterized by a variety of optical centers, energy transfer between centers takes place. In addition, a sharp narrowing of the generation line is observed. The authors thank V. V. Osiko for fluoride crystals, V. S. Zuyev for discussing the results, and G. A. Bogomolova for help in carrying out the experiments. [JA]
Orig. art. has: 4 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 15Aug66/ ORIG REF: 001/ OTH REF: 003/
ATD PRESS: 5117

Card 2/2

L.25558-66 *N)*   EWT(d)/EWT(m)/EWP(h)/EWP(1)   TT/WE

ACC NR: AM6004767   Monograph   UR/

Knoring, Semen Davydovich; Pavlinova, YEvgeniya Alekseyevna; Filippeo, Maksim Valentinovich; Shpakov, Vladimir Stepanovich, Shtumpf, Valentin Mikhaylovich

Floating flexible vessels for the transportation of petroleum products; problems of durability and hydrodynamics, and theory and methods of calculation (Plavuchiye elastichnyye yemkosti dlya transportirovki nefteproduktov; voprosy prochnosti i gidrodinamiki, teoriya i metody rascheta) Leningrad, Izd-vo "Sudostroyeniye", 1965. 223 p. illus., biblio. 1,250 copies printed

TOPIC TAGS: ocean transportation, inland vessel data, merchant vessel data, cargo ship, solid statics, hydrodynamics

PURPOSE AND COVERAGE: The book presents the results of investigations of the strength and speed of new means of transportation--floating elastic vessels intended for the transportation of petroleum products and other liquid loads on sea and inland waterways. Experience and design of manufacture of such vessels, accumulated in Soviet and foreign shipbuilding is described. Practical methods for calculating the strength and speed of floating elastic vessels under all principal operating conditions are given. Recommendations on the design and construction of such vessels are presented. The bulk of the investigations reported were made by the authors and are published for the first time. The book is intended for engineering-technical workers in design offices and in the shipbuilding industry, and can also be used by students of shipbuilding institutes and faculties. Authors thank N. P. Sytov, A. L. Koshevoy, B. I.

Card 1/2

L 25558-66

ACC NR: AM6004767   5

Golod, R. V. Pyatyshev, and V. YA. Aleksandrov and also YU. F. Ryabkov for useful re-
marks, and N. V. Alekseyeva for great help in the calculations and the reduction of
the experimental data. The sections of the book devoted to shell strength were
written by S. D. Knoring, YE. A. Pavlinova, and M. V. Fillipeo, and the hydromechanic
sections were written by V. M. Shtumpf and V. S. Shpakov.

TABLE OF CONTENTS [abridged]:

SUB CODE: 13/   SUBM DATE: 17Sep65/   ORIG REF: 041/   OTH REF: 009

Card 2/2 FW

NOGID, Lev Markovich; GIRS, I.V., kand.tekhn.nauk, retsenzent;
SHPAKOV, V.S., kand.tekhn.nauk, retsenzent; DORIN, V.S.,
nauchnyy red.; SHAKHNOVA, V.M., red.; SHISHKOVA, L.M.,
tekhn. red.

[Planning the shape of a ship and preparing preliminary draw-
ings]Proektirovanie formy sudna i postroenie teoreticheskogo
chertezha. Leningrad, Sudpromgiz, 1962. 242 p.
(MIRA 15:8)

(Hulls (Naval architecture))

DUBROVSKIY, V.A., inzh.; DIAKOV, V.M., inzh.; SITAROV, V.S., kand. tekhn. nauk

Studying the seaworthiness and strength of catamarans. Sudostroenie
30 no.7:63-65 Jl '64.
(MIRA 18:9)

kand.tekhn.

seagoing

(MIRA 18:8)

SHPAKOV, Ye.

2C970 Shpakov, Ye. i Vinogradov, V. Sul'fidnyi vypryamitel' dlya zaryadki Starteknykh Akkumulyatornykl batarey. Autoreril', 1949, No. 6, s. 22-23.

SO: LETOPIS ZHURNAL STATEY- Vol. 28, Moskva, 1949

NOVIKOV, Mikhail Petrovich,; SHPAKOVA, A.P.,otv. za vypusk,; OVSYANNIKOV,
M.F.,dots., kand. filosofskikh nauk, red.; FURMAN, G.V., tekhn. red.

[Inconsistencies in the socialist system of production and
how to overcome them] Protivorechiia v sotsialisticheskom sposobe
proizvodstva i ikh preodolenie. Moskva, Ob-vo po rasprostraneniiu
polit. i nauchn. znanii RSFSR, 1958. 31 p.   (MIRA 11:12)

1. Zav. otdelom filosofii, pedagogiki, literatury i iskusstva
Pravleniya Obshchestva po rasprostraneniyu politicheskikh i
nauchnykh znaniy RSFSR(for Shpakova).
                    (Industry)

USSR / Cultivated Plants. Grains.   N-3

Abs Jour: Ref Zhur-Biol., 1958, No 16, 72927.

Author   : Dombrovskaya, M. V.; Shpakova, B. M.
Inst   : Odessa University.
Title   : Increase in Harvest Yield of Corn by Means of
           Additional Carbon Feeding Through the Roots.

Orig Pub: Nauchn. yezhegodnik, Odessk. un-t, 1956, Odessa,
          1957, 202-203.

Abstract: No abstract.

Card 1/1

CHERNYSHEV, M.P.; ROZHKOV, L.P.; SHUL'GINA, Ye.F.; IGNATOVICH, A.F.;
        LABUNSKAYA, L.S.; FOMINA, T.V.; CHERNYAKOVA, A.P.; SHPAKOVA,
        L.N.; TARASOVA, M.K.; ANFILATOVA, A.I.; SLAVIN, L.B.;
        BARYSHEVSKAYA, G.I.; DERIGLAZOVA, N.V.; MATUSHEVSKIY, G.V.;
        AL'TMAN, E.N.; KROPACHEV, L.N.; CHEREDILOV, B.F.; POTAPOV,
        A.T.; DUDCHIK, M.K.; REGENTOVSKIY, V.S.; YERMAKOVA, L.F.;
        SEMENOVA, Ye.A.; KULIKOVSKIY, I.I.; KIRYUKHIN, V.G.; AKSENOV,
        A.A., red.; NEDOSHIVINA, T.G., red.; SERGEYEV, A.N., tekhn.
        red.; BRAYNINA, M.I., tekhn. red.

[Hydrometeorological handbook of the Sea of Azov] Gidrometeoro-
logicheskii spravochnik Azovskogo moria. Pod red. A.A.Aksenova.
Leningrad, Gidrometeoizdat, 1962. 855 p.   (MIRA 16:7)

1. Gidrometeorologicheskaya observatoriya Chernogo i Azovskogo
morey.
                    (Azov, Sea of—Hydrometeorology)

L 54531-65   EWT(1)/FCC   GW

ACCESSION NR: AR5014444

SOURCE: Ref. zh. Geofizika, Abs. 5B592

UR/0169/65/000/005/B106/B106
551.575 (262.54)

15
B

AUTHOR: Shpakova, L. N.

TITLE: Fogs on the Sea of Azov

CITED SOURCE: Sb. rabot Gidrometerol. observ. Chern. i Azovsk. morey, vyp. 2, 1964, 93-99

TOPIC TAGS: climatology, fog, advective fog, radiation fog

TRANSLATION: All cases of fogs for a 10-year period for 13 stations representative of all the coastal regions of the Sea of Azov were considered. In addition, observational data for 10 vessels for a 5-year period were used, as well as data from aircraft reconnaissance for a 9-year period. Fogs occur on the Sea of Azov during the entire year and have a well-expressed seasonal variation. The maximum number of days with fog occurs in winter (20-23 days) and the minimum in summer (2 days). Fogs with a continuous duration of 12 hours predominate. Fogs are formed when there are weak winds (from 1 to 5 m/sec). In winter, advective fogs occur which cover not only the coast but also the open part of the sea and these are quite persistent. In spring, summer and autumn there is a predominance of

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L 54531-65

ACCESSION NR: AR5014444

radiation fogs; these are observed at several coastal stations but are almost never observed in the open part of the sea. T. Terent'yeva

SUB CODE: ES   ENCL: 00

Card 2/2

SHPAKOVA, N.A. Cand Agr Sci -- (diss) "Questions ~~on~~ _Problems of_ agricultural engineering of corn under ~~the~~ _the_ conditions of Vitebskaya Oblast ~~the Vitebsk area~~ of BSSR." Mos,1957. 17 pp. (Mos Order of Lenin Agr Acad im Academician K.A. Timiryazev). 110 copies.

(KL, 8-58, 107)

-49-

SHPAKOVA, N.R., inzh.

Blocking of disconnectors and cutouts. Energetik 12 no.12:15-16
D '64   (MIRA 18:2)

SOV/91-59-5-11/27

8(2,6)

AUTHORS: Shpakova, N.R., Engineer and Preyverk, Kh.Kh.,
Technician

TITLE: Blocking-Up the Switches With Disconnectors (Blo-
kirovka vyklyuchateley s raz"yedinitelyami)

PERIODICAL: Energetik, 1959, Nr 5, pp 21-23 (USSR)

ABSTRACT: This article describes the construction and func-
tioning of the blocking of the oil breakers of a
complex distribution device KRU 3 kv with dis-
connectors of two feed lines KRU, sectional dis-
connector KRU and interbusbar 3 kv RU, worked
out by the electric laboratory of the Tallin
power plant. It consists of four intermediate
relays EP-101-A, one intermediate relay EP-103,
block contacts of section disconnectors I and
II KRU switched up to block busbars 1ShB-I, 2
ShB-II, 1ShB-II, 2ShB-II, block contacts and dis-
connection locks R,2R,3R (Figure 2). A peculiar

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SOV/91-59-5-11/27

Blocking-Up the Switches With Disconnectors

feature of this scheme consists of the use of
intermediate relays. There are 2 schemes.

Card 2/2

LATSH, I.V., _____; CHEKOTA, R.P., mladshiy nauchnyy
sotrudnik

Collective farm is mobilizing hitherto unused resources. Zemledelie
7 no.5:17-20 My '60.   (MIRA 12:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomii sel'skogo
khozyaystva.
                    (Mogilev Province--Agriculture)

L 01946-67 EWP(k)/EWT(d)/EWT(m)/EWP(w)/EWP(v) IJP(c) EM/WW

ACC NR: AR6021882 *(N)* SOURCE CODE: UR/0124/66/000/003/V015/V015

AUTHOR: Protsenko, O. P.; Shpakova, S. G.

TITLE: The stability of a <u>cylindrical shell</u> with an initial bend under dynamic loading

SOURCE: Ref. zh. Mekhanika, Abs. 3V103

REF SOURCE: Sb. Dinamika sistem tverdykh i zhidkikh tel. Kiyev, 1965, 107-114

TOPIC TAGS: cylindric shell structure, cylindric shell, cylindric shell stability, dynamic loading, bending stress, compression force, axial compression

ABSTRACT: A comparison was made between two methods of calculating the effect of an initial bend on the stability of a closed cylindrical shell subjected to aperiodic axial compression forces. The first method, which is commonly used for studying the stability of a cylindrical shell, is based on the assumption that the bending of the shell consists of an initial bend and an elastic bending resulting from the application of a load. In the second method, changes in the curvature of the initial bend in the shell is taken into consideration so that

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ACC NR: AR6021882

O

the cylindrical surface is transformed into a quasicylindrical surface of a variable dual curvature. Bending of such a shell is understood to mean only elastic bending. A numerical study showed that according to the second method, which considers the effect of the initial bend, the bend increases more sharply and the magnitude of bending is significantly higher during the loss of stability. The average value of the critical dynamic load obtained by the second method is 10% higher than the corresponding magnitude found by the first method. [Translation of abstract.] [FM]

SUB CODE: 20/

Card 2/2 gd

AUTHORS: Shul'ga, P.L. and Shpakova, V.B.   21-58-5-23/28

TITLE: New Geological Section of the Paleozoic Deposits in the
              North-Western Part of Volyn' (Novyy geologicheskiy raz-
              rez paleozoyskikh otlozheniy v severo-zapadnoy chasti
              Volyni)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1958, Nr 5,
              pp 558-561 (USSR)

ABSTRACT: The article describes the geological section of a pro-
              specting hole drilled in 1957 on the right bank of the
              Zapadnyy Bug river in the village Berezhtsy, Lyuboml'
              district, Volyn' Oblast'. This hole crossed the following
              deposits: Quaternary - 16.5 m, Upper Cretaceous - 321.40
              m, Jurassic - 7.50 m, Lower Carboniferous - 13.55 m, Up-
              per Cambrian - 285.25 m, Middle Cambrian - 136.45 m,
              Lower Cambrian - 125.45 m, and Ripheus - 340.55 m, of
              which 109.2 m in the upper part correspond to the Baltic
              laminaritic and Gdov formations, and 231.35 m in the
              lower part are represented by sedimentary effusive rocks.
              The authors correlate the Upper Cambrian deposits in the
              section under consideration, with the horizon of obolus
              sandstones and dictyonema slates. There is a transgressive
Card 1/2   overlap of the Lower Cambrian deposit over the Ripheus ones.

21-58-5-23/28

New Geological Section of the Paleozoic Deposits in the North-Western
Part of Volyn'

> The laminaritic-Gdov formation in this section is corre-
> lated with the lower strata of the Podolian Ushitsa se-
> ries.   There are 4 Soviet references.

ASSOCIATION: Institut geologicheskikh nauk AN UkrSSR (Institute of
Geological Sciences of the AS UkrSSR)

PRESENTED: By Member of the AS UkrSSR, V.G. Bondarchuk

SUBMITTED: October 17, 1958

NOTE: Russian title and Russian names of the individuals and in-
stitutions appearing in this article have been used in the
transliteration.

1. Geology--USSR

Card 2/2

SHAPOSHNIKOVA, L.A.; SHPAKOVA, V.M.

Use of pollen in the metallurgical industry. Bot. zhur. 48
no.6:843-844 Je '63.   (MIRA 17:1)

1. Odesskiy gosudarstvennyy universitet imeni I.I. Mechnikova.

SHPAKOVICH, A.D.

    Automatic machine for printing labels on bottles. Med. prom. 10
    no.1:20-23 Ja-Mr '56.   (MLRA 9:6)

    1. Kiyevskiy zavod meditisnskikh preparatov.
        (LABELING MACHINES)

SHPAKOVICH, A.V., inzh.sluzhby puti

Snow protection of tracks in tundra regions. Put' i put.khoz. 4
no.9:22-23 S '60.   (MIRA 13:9)

1. Kombinat "Vorkutaugol'," g.Vorkuta.
        (Pechora Basin--Railroads--Snow protection and removal)

SHPAKOVICH, V.M., kapitan meditsinskoy sluzhby

Experience in the sanitary bacteriological inspection of bread.
Voen. med. zhur. no.2:57-58 '63.   (MIRA 17:9)

POLAND / Chemical Technology.   Processing of Solid Fuels   H-22

Abs Jour   : Ref Zhur - Khim., No 12, 1958, No 40934

Author   : Shpakovskeya
Inst   : Not given
Title   : Gas Supply in Bordeaux, France

Orig Pub   : Gaz. woda, techn. sanit., 1957, 31, No 10, 383-387

Abstract   : A modern gas supply system in Bordeaux, France, is desc-
              ribed. It is based on the production of natural gas from
              the dry distillations carried on in the coal and petroleum
              refineries. Technical installations are described, as well
              as the properties of the installations of the catalytic
              cracking process of natural gas, the production of propane
              -- air gas, and also the mixing of these prepared gases in
              order to prepare standard city gas.

Cerd 1/1

7

SHPAKOVICH, E.Ya., inzh.

Use of radioactive isotopes for investigating the wear process
of coal pulverizer balls. Teploenergetika 9 no.10:10-13 O
'62. (MIRA 15:9)

1. Yuzhnoye otdeleniye Gosudarstvennogo tresta po organizatsii
i ratsionalizatsii rayonnykh elektrostantsiy i setey.
(Coal, Pulverized)
(Radioisotopes--Industrial applications)

L 13814-66   EWT(m)/EWP(j)/T   RPL   WW/DJ/RM

ACC NR: AP6002486   (A)   SOURCE CODE: UR/0191/66/000/001/0060/0063

AUTHORS: Shcherbak, P. N.; Shpakovskaya, G. B.

ORG: none

TITLE: Dielectric strength of films made of polytetrafluoroethylene (Teflon), polystyrene, and styrene copolymer--CAM

SOURCE: Plasticheskiye massy, no. 1, 1966, 60-63

TOPIC TAGS: polymer dielectric, dielectric breakdown, dielectric layer, statistic analysis, statistic distribution

ABSTRACT: Dielectric strength of thin Teflon, polystyrene, and styrene copolymer films in heterogeneous and homogeneous electrical fields was investigated. The study of the breakdown phenomenon is complicated for such films since the structural heterogeneity, impurities, etc. at small thicknesses become more pronounced, as was observed by P. N. Shcherbak (Plast. massy, No. 9, 40-43 (1963); ibid. No. 3, 60-64 (1951); ibid., No. 10, 51-57 (1962)). This results in a wide spread of values for dielectric strength from several hundreds of kw/mm to a few kw/mm or "zero" values. From a study of 4880 breakdowns in the above materials the following conclusions were reached: 1) for an objective evaluation of dielectric strength of films less than 0.03 mm thick, exposure of weak spots, and selection of the optimal number of

Card 1/2   UDC: 678.743.746.22.13--537

L 13814-66

ACC NR: AP6002486

film layers, it is necessary to plot the differential and integral distribution curves E; 2) dielectric strength of such films has to be determined in not less than 2 layers. Orig. art. has: 4 figures and 1 formula.

SUB CODE: 11, 20/ SUBM DATE: none/ ORIG REF: 012

Card 2/2

L 12976-66   EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)   IJP(c)   BB/GG

ACC NR: AP6001521   SOURCE CODE: UR/0302/65/000/004/0064/0066

AUTHOR: Sud'bin, B. A.; Shpakovskaya, D. V.

ORG: None

TITLE: A duodirectional pulse converter for changing angle of shaft rotation to discrete code

SOURCE: Avtomatika i priborostroyeniye, no. 4, 1965, 64-66

TOPIC TAGS: analog digital converter, pulse coding, shaft, mining machinery

ABSTRACT: The article is a report on a computing device developed at the Institute of Automation of the State Committee on Instrument Building, Means of Automation and Control Systems, State Planning Committee SSSR (Institut avtomatiki Gosudarstvennogo komiteta po priborostroyeniyu, sredstvam avtomatizatsii i sistemam upravleniya pri Gosplane SSSR) for use in the controller for the direction of motion of shaft-sinking combines. The device uses a pulse converter for changing angle of shaft rotation to discrete code (D. V. Nizovkina, B. A. Sud'bin, Soviet patent No. 145463). The unit has two independent outputs with pulses which differ in sign depending on the change in direction of rotation. The unit may be used for a wide range of shaft rotation rates and has a high signal to noise ratio. The angle of shaft rotation is converted to a pulse train by a disk mounted on the shaft and a readout head. The disk is made of a material with high magnetic permeability and has a number of teeth around the edge. The diameter of the disk may be increased or the pitch of

Card 1/2   UDC: 62-50-502

L 12976-66

ACC NR: AP6001521

the teeth reduced to increase the accuracy of the angle reading. The readout head consists of a differential transformer with a magnetic circuit made up of two ferrite rings. The magnetic circuit should be thinner than the width of the teeth on the disk. Air gaps are cut in the ferrite rings to take the teeth on the disk. The electrical circuit of the converter is shown and an explanation of its operation is given. Tests show that the device works reliably at shaft rotation speeds of 0.025 mm/sec to 300 rpm. Orig. art. has: 2 figures.

SUB CODE: 09, 13 / SUBM DATE: none /

Card 2/2

SOKOLOV, P.K., inzhener, retsenzent; PIVTSOV, N.P., inzhener, retsenzent;
    PARAMONOV, G.A., inzhener, redaktor; SHPAKOVSKAYA, L.I., redaktor;
    LISINA, V.M., tekhnicheskiy redaktor

    [Construction foreman's manual for general construction work]
    Spravochnik mastera-stroitelia po proizvodstvu obshchestroitel'-
    nykh rabot. Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1957.
    653 p.   (MLRA 10:7)
            (Construction industry)

BORISOVA, V.D. Prinimali uchastiye: BATURINA, Ye.A.; PESHKOVA, F.G.;
    ALENTOV, Ye.P.; LEVUSHKINA, V.Ye.; PETROVA, N.I.; SABLINA, O.F.;
    SLYADNEV, A.P.; TEVEROVSKAYA, Kh.A.; CHIZHIKOVA, N.M. SHPAKOVSKAYA,
    L.I., red.; POTOTSKAYA, N.M., tekhn.red.

    [Districts of Novosibirsk Province; physicogeographical features]
    Raiony Novosibirskoi oblasti; prirodno-ekonomicheskaia kharakteristika.
    Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1959. 367 p.
                                                    (MIRA 13:9)
        (Novosibirsk Province--Economic geography)

MINAYEVA, Valentina Gavrilovna; SHPAKOVSKAYA, L.I., red.; POTOTSKAYA,
     N.M., tekhn.red.

     [Medicinal plants of Siberia] Lekarstvennye rasteniia Sibiri.
     Izd.3., ispr. i dop. Novosibirsk, Novosibirskoe knizhnoe izd-vo,
     1960. 145 p.   (MIRA 13:11)
               (SIBERIA—BOTANY, MEDICAL)

VOZNYUK, Vladislav Vladimirovich; SHPAKOVSKAYA, L.I., red.; SUBBOTINA,
     G.M., tekhn. red.

    [Amateur radio designs] Radioliubitel'skie konstruktsii. Novo-
sibirsk, Novosibirskoe knizhnoe izd-vo, 1961. 133 p.
                           (MIRA 15:2)
          (Radio circuits)

SHMITKOVA, A.S.; SHPAKOVSKAYA, L.I., red.; GOSTISHCHEVA, Ye.M., tekhn.
red.

[Health resorts, sanatoriums, and rest homes of Siberia] Ku-
rorty, sanatorii i doma otdykha Sibir. Novosibirsk, Novosi-
birskoe knizhnoe izd-vo, 1961. 148 p.   (MIRA 15:1)

1. Glavnyy vrach Novosibirskogo kurortnogo Upravleniya (for
Shmitkova).
        (SIBERIA--HEALTH RESORTS, WATERING PLACES, ETC.)

PARAMONOV, G.A., inzh.; PICHUGIN, A.A., kand.tekhn.nauk; VANEYEV, V.A.,
       inzh.; KUZ'MINSKIY, A.G., inzh.; CHUYKO, A.V., kand.tekhn.nauk;
       VRUBLEVSKIY, L.Ye., inzh.; FURMAN, A.Ya., inzh. [deceased];
       PEGANOV, G.N., inzh.; SHEFANOV, A.S., inzh.; DMITRIYEV, P.A.,
       kand.tekhn.nauk; IVANOV, I.A., kand.tekhn.nauk; TEMKO, Yu.P.,
       dotsent; SOKOLOV, P.K., dotsent; KANYUKA, N.S., kand.tekhn.nauk;
       SHPAKOVSKAYA, L.I., red.; GOSTISHCHEVA, Ye.M., tekhn.red.

[Handbook for the master builder on the technology of general
building operations] Spravochnik mastera-stroitelia po tekhnologii
proizvodstva obshchestroitel'nykh rabot. 2. izd.perer. i dop.
Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1961. 713 p.
                                            (MIRA 15:2)
            (Building)

VOZNYUK, Vladislav Vladimirovich; SHPAKOVSKAYA, L.I., red.; SUBBOTINA,
G.M., tekhn. red.

[Radio amateur designs]Radioliubitel'skie konstruktsii. No-
vosibirsk, Novosibirksoe knizhnoe izd-vo, 1961. 133 p.
                                        (MIRA 16:3)
    (Radio--Equipment and supplies)

IOGANZEN, B.G., otv. red.; PETKEVICH, A.N., otv. red.; SAMARIN,
        V.P., red.; SHPAKOVSKAYA, L.I., red.

        [Development of pond fish culture in Siberia; materials of
        the Seventh Plenum of the Western Siberian Branch of the
        Ichthyological Commission of the State Planning Committee of
        the Council of Ministers of the U.S.S.R. held in Kemerovo on
        Semptember 11-12, 1961]Razvitie prudovogo rybolovstva v Sibi-
        ri; materialy VII Plenuma Zapadno-Sibirskogo otdeleniia
        Ikhtiologicheskoi komissii Gosplana SSSR, provedennogo v
        Kemerove 11-12 sentiabria 1961 g. Novosibirsk, 1962. 95 p.
                                                (MIRA 16:1)
        1. Russia (1923- U.S.S.R.)Gosudarstvennaya planovaya komis-
        siya. Ikhtiologicheskaya komissiya. Zapadno-Sibirskoye ot-
        deleniye. 2. Tomskiy universitet (for Ioganzen). 3. Gosudar-
        stvennyy nauchno-issledovatel'skiy institut ozernogo i rech-
        nogo rybnogo khozyaystva (for Petkevich).
               (Siberia, Western--Fish culture--Congresses)

AFANAS'YEV, S.P.; SHIFMANOVICH, N.M.[deceased]; SHPAKOVSKAYA, L.I.,
        red.; SUBBOTINA, G.M., tekhn. red.

        [Handbook on tolerances, threads and gages] Spravochnik po
        dopuskam, rez'bam i kalibram [By] S.P.Afanas'ev, N.M.Shifmanovich,
        Izd.3., perer. Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1962.
        406 p.   (MIRA 16:6)
        1. Novosibirskiy instrumental'nyy zavod, Novosibirsk.
                (Mechanical engineering--Handbooks, manuals, etc.)

GIK, Leonid Davidovich; KARANDEYEV, Konstantin Borisovich;
SHPAKOVSKAYA, L.I., red.; YELISTRATOVA, Ye.M., tekhn.
red.

[Electric correction of vibration measuring equipment] Elek-
tricheskaia korrektsiia vibroizmeritel'noi apparatury. No-
vosibirsk, Izd-vo Sibirskogo otd-niia AN SSSR, 1962. 127 p.
(MIRA 16:5)

(Vibration—Measurement)

KUTATELADZE, Samson Semenovich; LEONT'YEVA, Aleksandr Ivanovich;
SHPAKOVSKAYA, L.I., red.; OVCHINNIKOVA, T.K., tekhn. red.

[Turbulent boundary layer of compressible gas] Turbulentnyi
pogranichnyi sloi szhimaemogo gaza. Novosibirsk, Izd-vo
Sibirskogo otd-niia AN SSSR, 1962. 179 p.   (MIRA 16:6)
    (Boundary layer)   (Fluid dynamics)

KAZARINOV, V.P., otv. red.; BGATOV, V.I., red.; KAZANSKIY, Yu.P.,
        red.; KRASHENINNIKOV, G.F., red.; SAKS, V.N., red.;
        YABLOKOV, V.S., red.; SHPAKOVSKAYA, L.I., red.

        [Methods for compiling lithological facies and paleo-
        geographic maps; transactions] Metody sostavleniia li-
        tologofatsial'nykh i paleogeograficheskikh kart; trudy.
        Novosibirsk, Izd-vo Sibirskogo otd-niia AN SSSR.
        Vol.1. 1963. 174 p.   (MIRA 18:1)

        1. Vsesoyuznoye litologicheskoye soveshchaniye. 5th.
        Novosibirsk, 1961.

KOPTYUG, V.A.; VOROZHTSOV, N.N.(mladshiy), red.; SHPAKOVSKAYA, L.I.,
        red.; OVCHINNIKOVA, T.K., tekhn. red.

        [Isomerization of aromatic compounds] Izomerizatsiia aro-
        maticheskikh soedinenii. Pod red. N.N.Vorozhtsova. Novo-
        sibirsk, Izd-vo Sibirskogo otd-niia AN SSSR, 1963. 175 p.
                                                (MIRA 17:3)
        1. Chlen-korrespondent AN SSSR (for Vorozhtsov).

YAVORSKII, I..., doktor tekhn. nauk, ALAYEV, G.P.; ORENBAKH,
    M...; YALCHIK, V.I.; KHTEOVSKAYA, L.I., red.

[Effect of the structure of mineral coals on their combus-
tion] Vliianie stroeniia iskopaemykh uglei na ikh gorenie.
[By: I.A.Iaverskii i d.. Novosibirsk, Izd-vo Sibirskogo
otd-niia AN SSSR, 1963. 175 p.   (MIRA 17:8)

YERMOLOV, Viktor Veniaminovich; TROITSKIY, S.L., otv. red.;
        SHPAKOVSKAYA, L.I., red.

[Genetically homogeneous surfaces in geomorphological map-
ping] Geneticheski odnorodnye poverkhnosti v geomorfologi-
cheskom kartirovanii. Otv. red. S.L.Troitskii. Novosibirsk,
Red. izdatel'skii otdel Sibirskogo otd-niia AN SSSR, 1964.
36 p.   (MIRA 17:9)

BOROVKOV, A.A.; MARKOVA, N.P.; SYCHEVA, N.M.; SHPAKOVSKAYA, L.I.,
     red.

     [Tables for N.V.Smirnov's criteria of the uniformity of
     two samples] Tablitsy dlia kriteriev N.V.Smirnova odno-
     rodnosti dvukh vyborok. Novosibirsk, Redaktsionno-izd.
     otdel Sibirskogo otd-niia AN SSSR, 1964. 139 p.
                                    (MIRA 17:6)

KOSYGIN, Yu.A.; BASHARIN, A.K.; BERZIN, N.A.; VOLONTEY, G.M.;
     VOTAKH, O.A.; KRASIL'NIKOV, B.N.; PARFENOV, L.M.;
     SHPAKOVSKAYA, L.I., red.

[Pre-Cambrian tectonics of Siberia] Dokembriiskaia tek-
tonika Sibiri. Novosibirsk, Red.izd. otdel Sibirskogo
otd-niia AN SSSR, 1964. 124 p.   (MIRA 18:1)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut
geologii i geofiziki. 2. Chlen-korrespondent AN SSSR
(for Kosygin).

KUTATELADZE, S.S.; LEONT'YEV, A.I.; RUBTSOV, N.A.; GOL'DSHTIK,
        M.A.; VOLCHKOV, E.P.; DAVYDOVA, M.V.; DRUZHININ, S.A.;
        KIRILLOVA, N.N.; MALENKOV, I.G.; MOSKVICHEVA, V.N.;
        MIRONOV, B.P.; MUKHIN, V.A.; MUKHINA, N.V.; REBROV, A.K.;
        FEDOROV, V.K.; KHABAKHPASHEVA, Ye.M.; SHTOKOLOV, L.S.;
        SHPAKOVSKAYA, L.I., red.

        [Heat and mass transfer and friction in a turbulent
        boundary layer] Teplomassoobmen i trenie v turbulentnom
        pogranichnom sloe. Novosibirsk, Red.-izd. otdel Sibir-
        skogo otd-niia AN SSSR, 1964. 206 p.   (MIRA 18:1)

KHOMENTOVSKIY, A.S., nauchn. red.; SHPAKOVSKAYA, L.I., red.

[Geology and conditions governing sedimentation in the Suchan coal basin] Geologicheskoe stroenie i usloviia osadkonakopleniia na territorii Suchanskogo kamennougol'-nogo basseina. Novosibirsk, Red.-izd. otdel Sibirskogo otd-niia AN SSSR, 1964. 231 p.   (MIRA 18:1)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. 2. Chlen-korrespondent AN SSSR (for Khomentovskiy).

BELOUS, N.Kh., st. nauchn. sotr.; KAZANSKIY, Yu.P.; VDOVIN, V.V.;
    KLYAROVSKIY, V.M.; KUZNETSOV, V.P.; NIKOLAYEVA, I.V.;
    NOVOZHILOV, V.I.; SENDERZON, E.M.; AKAYEV, M.S.; BABIN,
    A.A.; BERDNIKOV, A.P.; GORYUKHIN, Ye.Ya.; NAGORSKIY, M.P.;
    PIVEN', N.M.; BAKANOV, G.Ye.; GEBLER, I.V.; SMOLYANINOV,
    N.M.; SMOLYANINOVA, S.I.; YUSHIN, V.I.; D'YAKONOVA, N.D.;
    REZAPOV, N.M.; KASHTANOV, V.A.; GOL'BERT, A.V.; SIDOROV,
    A.P.; GARMASH, A.A.; BYKOV, M.S.; BORODIN, L.V.; RYCHKOV,
    L.F.; KUCHIN, M.I.; SHAKHOV, F.N., glav. red.; SHFAKOVSKAYA,
    L.I., red.

[West Siberian iron ore basin] Zapadno-Sibirskii zhelezorud-
nyi bassein. Novosibirsk, Red.-izd. otdel Sibirskogo otd-
niia AN SSSR, 1964. 447 p.   (MIRA 17:12)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut geo-
logii i geofiziki. 2. Institut geologii i geofiziki Sibirskogo
otdeleniya AN SSSR (for Belous, Kazanskiy, Vdovin, Klyarovskiy,
Kuznetsov, Nikolayeva, Novozhilov, Senderzon). 3. Institut
gornogo dela (for Akayev). 4. Novosibirskoye geologicheskoye
upravleniye Ministerstva geologii i okhrany nedr SSSR (for
Babin, Berdnikov, Goryukhin, Nagorskiy, Piven').
                                      (Continued on next card)

BELOUS, N.Kh.---(continued). Card 2.

Tomskiy politekhnicheskiy institut (for Bakanov, Gebler,
Smolyaninov, Smolyaninova). 5. Sibirskiy nauchno-
issledovatel'skiy instiuut geologii, geofiziki i mineral'-
nogo syr'ya(for Yushin, D'yakonova, Rezapov, Kashtanov,
Gol'bert). 6. Institut ekonomiki sel'skogo khozyaystva (for
Garmash). 7. Sibirskiy metallurgicheskiy institut (for
Bykov, Borodin, Ryzhkov). 8. Tomskiy inzhenerno-stroitel'nyy
institut (for Kuchin). 9. Chlen-korrespondent AN SSSR (for
Shakhov).

KAZARINOV, V.P., otv. red.; BGATOV, V.I., red.; KAZANSKIY,
Yu.P., red.; KRASHENINNIKOV, G.F., red.; SAKS, V.N.,
red.; YABLOKOV, V.S., red.; SHPAKOVSKAYA, L.I., red.

[Sedimentary formations of Siberia; transactions] Osa-
dochnye formatsii Sibiri; trudy. Novosibirsk, Red.-
izd. otdel Sibirskogo otd-niia AN SSSR. Vol.2. 1964.
162 p.   (MIRA 18:6)

1. Vsesoyuznoye litologicheskoye soveshchaniye. 5th,
Novosibirsk.

Bratov-c

Shpakovskaya, L.I.

L 51475-65   EWP(m)/EPF(c)/EPF(n)-2/EPR/EWT(1)/FCS(k)/EWO(m)/EWA(1)   Pd-1/Pr-4/
Ps-4/Pu-4/Pi-4   WW

AM5012942   BOOK EXPLOITATION   S/   7/
                                                                       55
Kutateladze, S. S., ed.   /   e+1

Heat and mass transfer and friction in a turbulent boundary layer (Teplomassoobmen
   i treniye v turbulentnom pogranichnom sloye) Novosibirsk, Redizdat Sib. otd.
   AN SSSR, 1964. 206 pl illus., biblio. Errata slip inserted. 1000 copies
   printed. (At head of title: Akademiya nauk SSSR. Sibirskoye otdeleniye.
   Institut teplofiziki) Editor: L. I. Shpakovskaya; Technical editor: Ye. G.
   Shmakova; Proofreader: L. I. Korshunova

TOPIC TAGS: boundary layer flow, detached flow, friction, heat transfer, incom-
pressible fluid, mass transfer, nonisothermal flow, radiation effect, turbulent
boundary layer

PURPOSE AND COVERAGE: This book is a continuation of the monograph by S. S. Ku-
tateladze and A. I. Leont'yev, published in 1962, in which certain properties of
the limiting laws of friction and heat transfer in the turbulent boundary layer
on a solid were formulated and specific applications of these laws were analyzed.
The basic portion of the book was written by Kutateladze and A. I. Leont'yev.

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N. A. Rubtsov was mainly responsible for the development of problems of the inter-action of the turbulent boundary layer with radiation. The theory of the flow structure beyond the region of detachment was developed by M. A. Gol'dshtik. Others who helped prepare the book were N. N. Kirillova, B. P. Mironov, V. A. Mu-khin, N. V. Mukhina, A. K. Rebrov, V. K. Fedorov, M. V. Davydova, S. A. Druzhinin, E. P. Volchkov, Ye. M. Khabakhpasheva, I. G. Malenkov, V. N. Moskvicheva, and L. S. Shtokolov. Professor D. B. Spolding helped in the analysis of certain interesting questions.

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Ch. 7. The question of the effect of nonisothermicity on hydraulic resistance in
the case of turbulent flow of dripping liquid in tubes -- 177
Ch. 8. Heat-transfer crisis at high liquid flow rates -- 187

SUB CODE: ME   SUBMITTED: 30ct64   NR REF SOV: 049

OTHER: 070   DATE ACQ:

Card 3/3 MB

TSUKERMAN Viktor Grigor'yevich; VAYNSHTEYN, Emmanuil Yefimovich;
    SHPAKOVSKAYA, L.I., red.

    [Photoconductors in X-ray dosimetry] Fotoprovodniki v dozi-
    metrii rentgenovskogo izlucheniia. Novosibirsk, Red.-izd.
    otdel Sibirskogo otd-niia AN SSSR, 1965. 52 p.
                                        (MIRA 18:3)

24751
s/191/61/000/007/007/010
B101/B215

15 8510

AUTHORS: Ratner, S. B., Stinskas, A. V., Shpakovskaya, Ye. I.

TITLE: Long-time strength of plastics

PERIODICAL: Plasticheskiye massy, no. 7, 1961, 52.??

TEXT: This is a review of publications on the long-time strength of plastics. The equation by S. N. Zhurkov et al. (Ref. 1: ZhTF, 23, no. 10 (1953). Ref. 2: ibid., 25, no. 1 (1955)) is given:

$$\tau = \tau_0 \exp\left[(U_0 - \gamma\sigma)/RT\right] \quad (1),$$

where τ is the long-time strength; τ_0 a constant almost independent of the material and approximately equal to the vibration period of the atoms in the molecule ($\tau_0 \approx 10^{-12}$ sec); U_0 a constant almost equal to the activation energy of thermochemical destruction; and γ a constant depending on the structure of material, which becomes smaller as the orientation increases, and larger on plasticizing. Results of other scientists are presented,

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Long-time strength of plastics

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especially data on glass-reinforced plastics. The difference between short-time and long-time tests is mentioned. In glass-reinforced plastics, the long-time strength after 1000 hr averages ⅔ of the short-time strength, and 1/2 in non-reinforced plastics. Papers by A. W. Thompson (see below), B. Pusey (see below), and R. C. Hooper (see below) on glass-reinforced epoxy resins are mentioned. Simplification of the complicated long-time test by extrapolation or, according to S Goldfein (see below), by temperature increase according to the equation $T = (20 + \log \tau) = \text{const}$ (5) is discussed. Comparison of long-time strength and fatigue strength (by cyclic loading) shows that in the latter case, the strength is considerably reduced probably due to local heating. Under all test conditions, reinforced plastics generally show higher values than non-reinforced plastics. A. P. Aleksandrov. Tomashevskiy, and a report made by Yu. S. Lazurkin at the Conference on the Strength of Polymers and Polymer Materials, Moscow, May 16-18, 1960, are mentioned. The authors thank T. N. Kryuchenko and D. I. Verizhnikova for compiling publications on glass-reinforced plastics. There are 5 figures, 3 tables, and 24 references: 11 Soviet-bloc and 13 non-Soviet-bloc The most important references to English-language publications read as follows: A. W. Thompson,

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24751

S/191/61/000/007/009/010

B101/B215

Long-time strength of plastics

X

Reinforced Plastics, no. 11 (1957); B. B. Pusey, R. H. Carey, Modern Plastics, 32, no. 7, (1955); R. C. Hooper, Plastics Technology, 3, no. 8 (1957); S. Goldfein, A. S. T. M. Bulletin, no. 224 (1957).

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S/191/62/000/008/010/013
B124/B180

15.8350

AUTHORS: L'vov, B. S., Koltunov, M. A., Kuznetsov, V. N.,
Shpakovskaya, Ye. I.

TITLE: Physicomechanical characteristics of glass-reinforced
plastics based on polyester resin. Elasticity constants of
glass-reinforced plastics

PERIODICAL: Plastiqheskiye massy, no. 8, 1962, 38-40

TEXT: Experimental results in determining the elasticity constants and
the effect of loading and deformation rates on the stress-strain diagram
of glass-reinforced plastics based on ПН-1 (PN-1) polyester resin and
T-1 (T-1) glass fabric have been obtained in the laboratoriya
stekloplastikov NIIPM (Laboratory of Glass-reinforced Plastics of NIIPM)
and the problemnaya laboratoriya fiziko-mekhanicheskikh svoystv
polimerov Moskovskogo universiteta (Special Research Laboratory for the
Physicomechanical Properties of Polymers, Moscow State University).
Isopropyl benzene hydroperoxide and cobalt naphthenate were used as
hardeners at room temperature. Test specimens were cut out from the

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Physicomechanical characteristics ...

fabric with their axes at angles φ to the warp of 0, 15, 30, 45, 60, 75, and 90°. They were kept at 80°C for 12 hrs. Loading and unloading were done in steps of 100 kg each, and measured with an accuracy of $\pm$ 1%. Fig. 1 shows the circuit diagram of the extensometer pickups which measured with 5% accuracy. Their readings were recorded on a static tensometer sensitivity $1 \cdot 10^{-5}$. Total error of the system did not exceed 3%. The stress-strain diagram is linear up to a deformation of $\sim 3 \cdot 10^{-3}$. Worst results are with $\varphi = 45°$. The fabric has three symmetry axes. The glass-reinforced plastic investigated is orthotropic.

$$E_{\varphi}/E_o = \frac{\lambda}{\lambda \cdot \cos^4\varphi + B\sin^2\varphi \cdot \cos^2\varphi + \sin^4\varphi} \text{ , where } \varphi \text{ is the angle between the}$$

warp and the direction of tensile stress and E = the elasticity modulus

in the same direction. $\lambda = \dfrac{E_{90}}{E_o}$ and $2B = 4\dfrac{E_{90}}{E_{45}}(1 + \lambda)$. The elasticity

modulus values calculated from these equations are in satisfactory agreement with experimental data. There are 5 figures.

Card 2/3

S/191/62/000/009/004/012
B101/B144

AUTHORS: L'vov, B. S., Panfcrov, K. V., Romanenkov, I. G., Shpekovskaya, Ye. I.

TITLE: Changes in the physicomechanical properties of glass-reinforced polyester plastics due to water

PERIODICAL: Plasticheskiye massy, no. 9, 1962, 16 - 18

TEXT: Longer immersion in water had the following effect on the physico-mechanical properties of glass-reinforced plastics (GRP) which contained 35-40% ПН-1 (PN-1) polyester resin as binder: (1) Reduction of tensile strength and bending strength depended on the type of glass filler. After 6 months' immersion in water, the tensile strength (in % of the initial value) for GRP with rope glass fabric was 62.5, with T-1 (T-1) plain weave glass fabric 68.0, with staple glass fiber 55.9; the bending strength dropped to 44.0, 66.5, and 35.1, respectively. (2) When T-1 glass fabric was treated with the organosilicon ГВС-9 (GVS-9) preparation the tensile strength of GRP after 40 days' immersion in water dropped by only 7.6, the bending strength by 15.6%, while the corresponding values for GRP with

Card 1/2

VASIL'YEV, Ye.F.; L'VOV, B.S.; STEPANYCHEV, Ye.I.; SHPAKOVSKAYA, Ye.I.

    Methods of static tests for tensile strength of glass plastics
    obtained by cold setting. Plast. massy no.6:57-60 '63.
                                 (MIRA 16:10)

ACCESSION NR: AP4039947   S/0191/64/000/006/0039/0040

AUTHOR: Voloshenko-Klimovitskiy, Yu. Ya.; Belyayev, Yu. A.; L'vov,
B. S.; Shpakovskaya, Ye. I.

TITLE: Impact tensile strength at +20 and -196 C of glass reinforced
plastics based on PN-1 binder cured at low temperatures

SOURCE: Plasticheskiye massy*, no. 6, 1964, 39-40

TOPIC TAGS: glass reinforced plastic, glass fabric T-1, polyester
resin PN-1, impact tensile test, static tensile test

ABSTRACT: The authors have developed at the Laboratory of the Strength
of Materials for Machine Building of the IMASh GKA i M a method for
impact tensile tests of glass reinforced plastics (GRP). This method
makes it possible to determine the tensile strength in uniaxial
stretching and can be used for calculating mechanical strength. It
was applied to T-1 glass fabric-reinforced unsaturated polyesters
resin PN-1. The GRP were subjected to static and impact tests. The
results, which are given in Fig. 1 of the enclosure, show that PN-1-
based GRP possess a good "dynamic strength reserve" both at +20 and
-196 C. Orig. art. has 1 figure and 1 table.

1/ 3

ACCESSION NR: AP4039947

ASSOCIATION: none

SUBMITTED: 00   DATE ACQ: 24Jun64   ENCL: 01

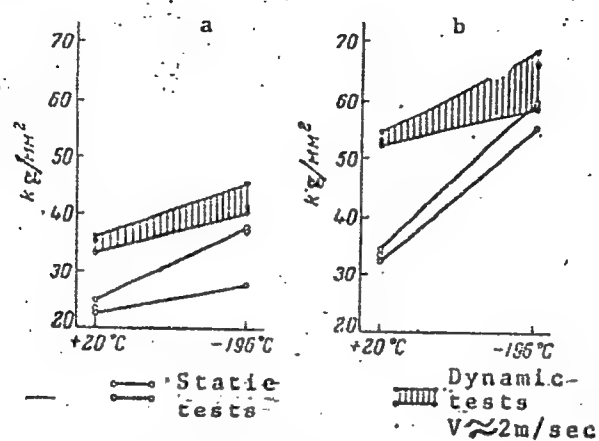SUB CODE: MT   NO REF SOV: 002   OTHER: 000

Card 2/3

Fig. 1. Results of static and dynamic
tensile tests of PN-1-based glass-rein-
forced plastics at +20 and -196 C

a - Along the woof; b - along the warp.

VOROSHENPOLDS INOVITSKII, Yu.Ya.; BELYAYEV, Yu.A.; IVOV, B.S.; SHISAKOVSKAYA, Ye.I.

Strength of solid cured PN-I bonded glass plastics under the conditions of impact tension at normal (+20°C) and low (-196°C) temperatures. Plast.massy no.6:39-40 '64.

(MIRA 18:4)

POPOV, Yo.I.; SHPAKOVSKAYA, Yo.I.

First all-Union scientific technical conference on the
production of glass reinforced plastics. Plast. massy no.11
70-71 '65.   (MIRA 18:12)

BLOKHINA, A.; TERENT'YEV, M.; SHPAKOVSKIY, A.

Repairing semi-axle sleeves with a metal drawing process. Avt.
transp. 35 no.1:30-31 Ja '57.   (MLRA 10:3)
            (Axles)

USSR / General Problems of Pathology.   Immunity.   U

Abs Jour: Ref Zhur-Biol., No 11, 1958, 51495.

Author   : Shpakovskiy, A. A.
Inst   : Vitebsk Veterinary Institute.
Title   : On the Mechanism of Passive Immunity Against
           Erysipelas in White Mice.

Orig Pub: Ych. zap. Vitebskogo vet. in-ta, 1956, 14,
          No 2, 80-85.

Abstract: No abstract.

Card 1/1

9

APPROVED FOR RELEASE: 08/09/2001   CIA-RDP86-00513R001549920012-8

ORIG. PUB. : Uch. Zap. Vitebskogo Vet. In-ta,
             51-58

ABSTRACT : In rabbits and young pigs immunized against swine
            erysipelas, studies were made of the changes in
            phagocytosis (P) and the phagocyte count (PC) upon
            the administration subcutaneously in rabbits of
            1 solution of caffeine in a dose of 1 ml/kg, and
            in pigs of a 20 solution in a dose of 5 ml/kg,
            or of NaBr to rabbits in a dose of 1 ml/kg of a
            1 solution, and to pigs in a dose of 2 g each.
            On the injection of caffeine in rabbits, the P
            increased by 11 to 42, and in pigs by 10 to 30
            the PC also rose. With NaBr, the P declined 1. to
            2 and the PC also went down. - A.R....

          : 1/1

SHPAKOVSKIY, A. U.

The reactions between sugars and boric acid. F. Ya. Hcrenshtein and A. U. Shpakovs'kii. *Ukrain. Khem. Zhur.* 11, 443 44(in German 444 5)(1936); cf. C. A. 30, 3484. The reactions between H_3BO_3 and $Na_2B_4O_7$ and mannose, xylose, arabinose, dulcitol, amygdalin, and other glucosides were investigated. The degree of dissocn. of H_3BO_3 is not affected by amygdalin but is raised by dulcitol, mannose, xylose, and arabinose. H_3BO_3 may be titrated to the end with alkali and phenolphthalein in the presence of at least 2 mols. of dulcitol or 8 mols. of arabinose per mol. of H_3BO_3. H_3BO_3 has no effect upon the degree of rotation of sugars or upon the speed of mutarotation. $Na_2B_4O_7$ increases the speed of mutarotation of glucose, arabinose, and galactose considerably, but that of fructose shows no appreciable changes. In the presence of $Na_2B_4O_7$, the angle of rotation of monosaccharides decreases greatly. Thus for arabinose, glucose, galactose, and fructose, the drop is considerable, while for some galactose solns. having a $Na_2B_4O_7$ concn. of 0.10 and 0.60 mols. per l., the change is to the left provided the sugar concn. is not over 1.8 and 0.45%, resp. $Na_2B_4O_7$ has little effect upon the optical properties of disaccharides. Thus for maltose the angle of rotation does not change, for sucrose it decreases slightly, and for lactose it increases a little. Neither H_3BO_3 nor $Na_2B_4O_7$ have any effect upon the process of formation or properties of osazones.

B. Z. Kazuich

SHPAKOVSIY, A. Ye

37566. Kvoprosy O Vliyanii Soley Kadmiya na Uglevodnyy Obmen. Uchen. Zapiski Viteb. Vet. In-Ta, T. IX, 1949, S. 94-99--Bibliogr: 10 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

SHPAKOVSKI, A.U.

MD Further investigations of the effect of cadmium salts on carbohydrate metabolism. A. U. Shpakovskiĭ. *Uchenye Zapiski Vitebsk. Vet. Inst.* 12, 99–113(1953); *Referat. Zhur., Khim.* 1954, No. 41474.—Subcutaneous injection of $CdCl_2$ or $Cd(OAc)_2$ to rabbits or dogs in the amts. of 0.2–10 mg./kg. body wt. increases the amylolytic and glycolytic activities in blood and decreases the glycogen content of the blood. It is concluded that the hyperglycemia, which occurs very often after an injection of Cd salts, may be due to increased breakdown of glycogen rather than to decreased processes of glycolysis.   E. Wierbicki

PROCESSES AND PROPERTIES INDEX

Velocity of propagation of sound in carbon dioxide near the critical state. B. G. Shpakovskiĭ. *Compt. rend. acad. sci. U. R. S. S. 3*, 26–31(in English 31–4)(1934).—A modification of Quincke's method was used. The position of the node of the stationary wave was detd. with a microphone. The velocity in CO_2 at temps. between 15° and 50° and at 1–85 atms. pressure was measured. The results (shown only graphically) are irregular. Values of $\gamma = (C_p/C_v)$ at 20°, 30°, 40° were calcd. from these results from $W^2 = -kv^2(dp/dv)_T$. Values for C_v (shown only graphically) vary greatly. The small increase in C_v with increase in pressure is regarded as real and is explained on the basis of Stewart's cybotactic theory of liquids (cf. C. A. 27, 4486). H. B. VanValkenburgh

A S M · S L A METALLURGICAL LITERATURE CLASSIFICATION

SHLAKOVSKIY, E. G.

SHLAKOVSKIY, E. G.
Uspekhi Fiz. Nauk (USSR) 14, 283-97 (1934)
Dispersion and selective absorption of ultrasonic waves in
polyatomic gases.

CA: 28-7094/9

Propagation of supersonic waves in liquids. I. Dispersion in some pure liquids and aqueous solutions. B. (i. Shpakovskii. *Compt. rend. acad. sci. U. R. S. S.* **18**, 169-72(1938)(in English).—No marked dispersion of supersonic waves over a wide range of frequencies was observed in Am. and Et. acetates and EtBr. Distd. water shows slight dispersion, while satd. solns. of KBr and KI show quite different velocities at low and high frequencies. II. Dispersion in acetic acid. *Ibid.* 173-6; cf. *C. A.* **31**, 5874.—The velocity of propagation of sound in AcOH at 18-23° is ca. 0.1% lower at frequencies of 230-270 kilohard than at 3400-3400. The possible causes of this dispersion are discussed. It is suggested that dispersion sets in when the period of the supersonic waves is comparable to the time for the establishment of equil. between AcOH and (AcOH)₂. K. O. Wilg

SHPAKOVSKIY, B.G.

Noise control. Priroda 45 no.8:112 Ag '56.   (MLRA 9:9)

1.Komissiya po akustike Akademii nauk SSSR.
                    (Noise)

SHPAKOVSKIY, G.G.

Preliminary processing of tomatoes in the area of their
cultivation. Kons.i ov.prom. 15 no.2:7-9 F '60.
                                        (MIRA 13:5)

1. Vinnitskiy sovnarkhoz.
        (Vinitsa Economic Region--Tomatoes)

MAL'TSEV, M.N., kand.tekhn.nauk; SHPAKOVSKIY, I.N., kand.geograf.nauk

A new low-pressure hydrogen generator for use in expeditions. Inform.
biul. Sov. antark. eksp. no.20:29-32 '60. (MIRA 13:9)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.
(Hydrogen) (Antarctic regions--Gas producers)

SHPAKOVSKIY, M.A.

PHASE I   BOOK EXPLOITATION   SOV/3662

Pikus, Meyer Yudelevich, Grigoriy Sofronovich Talako, and Mikhail
   Antonovich Shpakovskiy

Protyazhnyye avtomaty i poluavtomaty (Automatic and Semiautomatic
   Broaching Machines) Minsk, Gos. izd-vo BSSR, 1959. 213 p.
   Errata slip inserted. 3,000 copies printed.

Ed.: A. Molochkov; Tech. Ed.: N. Stepanova.

PURPOSE: This book is intended for technical personnel.

COVERAGE: The book deals with basic constructions of automatic and
   semiautomatic broaching machines manufactured in the Soviet
   Union. Detailed descriptions of the characteristics and technical
   specifications of types of general- and special-purpose machines
   are given. Hydraulic, electric, and manually operated auxiliary
   equipment is also described. The principal manufacturers of these
   machines are the Minskiy stankostroitel'nyy zavod imeni Kirova
   (Minsk Machine-Tool Plant imeni Kirov) the "Stankokonstruktsiya"
   Plant, and the Kolomenskiy zavod tyazhelogo stankostroyeniya
   (Kolomna Heavy Machine-Tool Plant). No personalities are men-

Card 1/8

ANBINDER, Ya.Ye. [Anbinder, IA.IE.]; SHPAKOVSKIY, N.Ye. [Shpakovs'kyi, N.E.];
     DARBINYAN, S.A.; KOMAROV, V.V.; KOMAROVA, T.V.; KOZLOV, Yu.A.; KONOKOTIN,
     L.P.; ZEREKIDZE, V.M.; SHULYATITSKIY, S.M. [Shyliatyts'kyi, S.M.];
     KHODURSKIY, Ye.A. [Khodurs'kyi, IE.A.]; OBUSHINSKIY, Ye.I. [Obushyns'kyi,
     IE.I.]; GVOZDIK, A.A. [Hvozdyk, A.A.]; NIKITINA, M.A.; LUPASHKO, N.F.;
     BESKROVNYY, M.N.; TSIMBLER, M.Ye. [TSymbler. M.IE.]; ILYN, A.N.; TOTADZE,
     P.M.; ZHIGURS, Kh.Yu.; ZAKREVSKIY, Ye.S. [Zakrevs'kyi, IE.S.];
     FEDOROVICH, A.G. [Fedorovych, A.H.]; CHALENKO, D.K.; KHOMUTOV, D.A.;
     SKURIKHIN, I.M.; NILOV, V.I.; YEFIMOV, B.N. [IEfimov, B.N.]; KAZANOVSKIY,
     V.S. [Kazanovs'kyi, V.S.]; ZOTIKOV, L.S.; KOCHURENKO, M.A.

     Soviet certificates of invention. Khar. prom. no.2:57-59 Ap-Je '65.
                                                  (MIRA 18:5)

SHPAKOVSKII, V. A.

Pigeon Pea

Pigeon pea as a new feed crop.   Korm. baza 3 no. 6, 1952.

1. SHPAKOVSKIY, V. A.

2. SSSR (600)

4. Uzbekistan-Legumes

7. "Kaian" is a new subtropical leguminous crop for Uzbekistan.
   Dost. sel'khoz. No. 10, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

MALBIYEV, Rafael' Isaakovich; SHPAKOVSKIY, V.I., red.; FEDOTOVA, M.I.,
    ved.red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Dockside structures of tank farms] Prichal'nye sooruzheniia
neftebaz. Leningrad, Gos. nauchno-tekhn.izd-vo neft. i gorno-
toplivnoi lit-ry, Leningr. otd-nie, 1958. 165 p.   (MIRA 12:1)
                (Wharves)   (Tank vessels)